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6 TYPEWRITER EXAMINATIONS

6.1 Objective

To conduct a wide range of examinations related to typewriters. These examinations include, but are not limited to, typewriter/type element classification and identification, examinations and comparisons of typewriters and typed materials, and examinations and comparisons of various typewriter components.

6.2 References

- Conway, James V.P.; <u>Evidential Documents</u>; Charles C. Thomas Publisher, 1959
- Harrison, Wilson R.; <u>Suspect Documents</u> (Second Edition); Sweet & Maxwell Ltd., 1966
- Ellen, David; The Scientific Examination of Documents (Second Edition); Taylor & Francis Ltd., 1997
- Hilton, Ordway; Scientific Examination of Questioned Documents (Revised Edition); Elsevier, 1982

6.3 Equipment

- Stereo microscope
- Magnifiers
- Typewriter test grids
- Haas Atlas
- Bouffard Typestyle Classification Database

6.4 Procedures

- 6.4.1 These procedures may not address all aspects of any uncommon or unusual circumstances encountered during examinations.
- 6.4.2 The procedures outlined below may not be possible or necessary in each and every case.
- 6.4.3 Examination of Typewritten Documents
 - 6.4.3.1 Determine if the document is an original.
 - 6.4.3.2 Establish that the document is typewritten, and not the product of some other sort of printout device.
 - 6.4.3.3 Determine the type of mechanism (e.g. typebar, single element ball, printwheel) if possible.
 - 6.4.3.4 Determine horizontal spacing(s) (e.g. 254 mm, 212 mm); single, dual or multiple escapements.
 - 6.4.3.5 Determine typestyle(s) (e.g. courier, prestige).
 - 6.4.3.6 Determine size of characters (e.g. pica, elite, micro elite).
 - 6.4.3.7 Determine other characteristics of type (e.g. bold type, justified margins).

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- 6.4.3.8 Determine type of ribbon (e.g. fabric, carbon film permanent, lift-off correctable).
- 6.4.3.9 Determine the consistency of typewriting throughout the document and note any possible interlineation.
- 6.4.3.10 Search the Bouffard database and, if appropriate, the Haas Typewriter Atlas in an effort to identify the typestyle and make/model of potential machines using that particular typestyle.
- 6.4.3.11 Conduct microscopic examinations of the typescript for identifying (individual) characteristics (e.g. character abnormalities/defects, misalignment of characters).
- 6.4.4 Comparison of Typewritten Documents
 - 6.4.4.1 Compare the examination results from 6.4.3, above, for each typewritten document, noting whether there is, or is not, general agreement with respect to the class characteristics (e.g. typestyle, escapement, line spacing, typewriter mechanism, ribbon type, margins).
 - 6.4.4.2 Compare the microscopic examination results from 6.4.3.11, above, for each typewritten document, noting whether there is, or is not, agreement with respect to any identifying (individual) characteristics present.
 - 6.4.4.3 Evaluate the significance of any similarities or dissimilarities from 6.4.4.1 and 6.4.4.2, and form a conclusion within any appropriate limitations.
- 6.4.5 Examination of Typewriters/Typewriter Components and comparison to Typewritten Documents
 - 6.4.5.1 Note condition of typewriter and components as received (e.g. damaged, settings, etc.).
 - 6.4.5.2 Record make, model, serial numbers, manufacturer, and any history of usage/repair (if known).
 - 6.4.5.3 Examine element/printhead, or typefaces (typebar machine), and record any defects found.
 - 6.4.5.4 Examine typewriter/printer platen for typewritten images.
 - 6.4.5.5 Prepare exemplars (do not use questioned ribbon if possible). Use initial settings on typewriter prior to changing to other settings as appropriate. Exemplars may include strike-ups of the entire keyboard, questioned text, etc. Exemplars may need to be taken on various paper stocks.
 - 6.4.5.6 Examine exemplars for identifying (individual) characteristics.
 - 6.4.5.7 Conduct comparisons of exemplars to the questioned text, noting whether there is, or is not, agreement with respect to class and any individual characteristics.
 - 6.4.5.8 On devices with memory capability, print the contents of the memory (may require contact with the manufacturer in order to avoid losing contents of the memory).
 - 6.4.5.9 If the typewriter/printer is inoperable, it may be necessary to have it repaired and note causes for why it was inoperable.
 - 6.4.5.10 Evaluate the significance of any similarities or dissimilarities from 6.4.5.7, consider any other significant observations, and form a conclusion within any appropriate limitations.

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6.4.6 Ribbon Examinations

- 6.4.6.1 Ribbon exams may be conducted on single use carbon film ribbons, correction ribbons (lift-off tape), thermal ink transfer ribbons, and other types of ribbons in certain cases.
- 6.4.6.2 Single use carbon film ribbons may be read manually. If a questioned text is located on the ribbon, record the location of the text prior to excising the section from the ribbon. Excised sections can be placed between layers of polyester film (e.g. document protectors). Note that portions of the questioned text may appear on correction ribbons.
- 6.4.6.3 If possible, match the text on the ribbon to the actual questioned document using fracture match and/or paper fiber impressions methods.
- 6.4.6.4 Consider the significance of observations in 6.4.6.2 and 6.4.6.3 and form a conclusion within any appropriate limitations.

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